

a heat insulator disposed between at least one section of said electrical conductor and said carrier structure.

[Claim 2 has been amended as follows:]

2. (Amended) An electrical coil as claimed in claim 1 wherein at least a portion of said conductor is a hollow cylinder adapted for guiding a flowing cooling medium therein.

[Claim 3 has been amended as follows:]

3. (Amended) An electrical coil as claimed in claim 1 wherein said section of said electrical conductor is a first section and wherein said cooling device component cools at least one second section of said electrical conductor.

[Claim 4 has been amended as follows:]

4. (Amended) An electrical coil as claimed in claim 3 wherein at least said one second section of said electrical conductor proceeds in an edge region of a spatial extent of said coil.

[Claim 5 has been amended as follows:]

5. (Amended) An electrical coil as claimed in claim 3 wherein said coil has a spatial extent forming a hollow cylinder, and wherein said at least one second section of said electrical conductor proceeds in a region of a front side of said hollow cylinder.

[Claim 6 has been amended as follows:]

6. (Amended) An electrical coil as claimed in claim 1 wherein said heat insulator surrounds said electrical conductor.

Claim 10 has been amended as follows:

10. (Amended) An electrical coil as claimed in claim 1 wherein said carrier structure includes elements for reducing a non-homogeneity of a magnetic field in which said carrier structure and said electrical conductor are disposed.

Please add the following new claims 14 and 15:

14. An electrical coil as claimed in claim 3 wherein said first section and said second section at least partially overlap each other.

15. An electrical coil as claimed in claim 3 wherein said first section and said second section do not overlap each other.

IN THE DRAWINGS:

Figures 1, 2 and 3 have been amended as shown on the drawing copies marked in red attached to the Request for Approval of Drawing Changes filed simultaneously herewith